REMARKS/ARGUMENTS

Applicants received the final Office Action dated April 7, 2004, in which the Examiner: (1) rejected claims 1, 7-10 and 19 as anticipated by Mahmoud (U.S. Patent No. 6,425,079); and (2) rejected claims 2-6, 11-18, and 20-23 as obvious over Mahmoud in view of Biondi. In this Response, Applicants amend claims 1, 10, and 20 and submits new claim 24. Based on the arguments and amendments contained herein, Applicants respectfully request reconsideration and allowance of the pending claims.

Mahmoud discloses a computer system that includes a basic input/output system ("BIOS") read only memory ("ROM") 22 mounted on a motherboard 40. See Figure 1. Mahmoud's system also includes an adapter card 80 coupled to the motherboard 40. The adapter card includes an option ROM 70 on which a BIOS routine 72 is stored. The system BIOS is used to initialize the computer system and the option ROM BIOS is used in conjunction with the operation of the adapter card. Col. 1, lines 14-60.

Mahmoud explains that adapter cards have a control chip 92 (Figure 1) in addition to an option ROM. The control chip 92 includes an identifier as does the option ROM BIOS. The identifiers must match for the option ROM BIOS to function correctly. See col. 1, lines 25-60. Figures 4(a) and 4(b) of Mahmoud disclose an option ROM that includes multiple BIOS routines (e.g., routines 172, 182, and 192 in Figure 4(a)). Each such routine includes a different identifier, one of which presumably matches the identifier of the control chip 190. The BIOS routine that has the matching identifier is used for the adapter card. By providing multiple option ROM BIOSes, each with a different identifier, Mahmoud's contribution addresses the problem of identifier mismatch between an adapter card's control chip and the adapter card's option ROM BIOS.

Claim 1 is directed to a system having an "original boot block" which "checks for a secondary boot block." Applicants amend claim 1 to explain that "the secondary boot block is a replacement boot block for the original boot block." Mahmoud does not teach or suggest this feature. The Examiner seems to have analogized Mahmoud's system ROM BIOS to the claimed "original boot block"

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and Mahmoud's option ROM BIOS to the claimed "secondary boot block." However, as claimed "the secondary boot block is a replacement boot block for the original boot block." Mahmoud does not teach or even suggest that his option ROM BIOS can function as a replacement for the system ROM BIOS. Mahmoud's option ROM BIOS comprises executable code specific to the operation of the adapter card while the system ROM BIOS comprises executable code relative to the general operation of the system.   At least for this reason, claim 1 is patentable over the art of record. Claims 2-9 depend on claim 1 and are patentable at least for the same reason as claim 1.

Applicants shortened the preamble of claim 10 to remove verbiage that is not necessary for patentability. Further, Applicants amended claim 10 to replace the "wherein" clause[1] with "if a secondary boot block is present, completing initializing the computer system using the secondary boot block instead of the original boot block." Mahmoud's system does not have the ability to complete the initialization process using a secondary boot block, if present, instead of using the original boot block." Further, claim 10 has been amended to specify that "the secondary boot block is a replacement for the original boot block." As explained above, Mahmoud does not have such a feature.   For either or both of these reasons, claims 10 and dependent claims 11-19 are patentable.

In addition to Mahmoud, the Examiner used Biondi with regard to claim 20. Biondi addresses the problem of firmware upgrades for peripheral devices.

> When that firmware program is to be upgraded, the upgrade firmware is received and stored in a second one of the at least two memory spaces. After the upgrade firmware is completely received and stored in that second memory space, the original firmware in the first memory space is erased or otherwise marked as no longer being valid. Thus, the only valid firmware is then the upgrade firmware in the second memory space. The bootstrap program accesses which ever memory space contains valid firmware.

Col. 1, lines 59-67.

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[1] "wherein the original and second boot blocks are each adapted to perform at least a portion of an initialization of the computer system and then to pass control to an operating system."

Applicants amended claim 20 to shorten the preamble to thereby remove unnecessary language. Claim 20 was also amended to specify that the "second boot block compris[es] replacement code for the first boot block." Mahmoud does not disclose this capability as explained above. The system of Biondi (Figure 3) discloses the use of only a single "boot code space" 542. Biondi does not teach or suggest that the first and second firmware memory spaces 544 and 546 comprise boot block code. Thus, Biondi does not disclose first and second boot block codes where one boot block code is a replacement for the other. At least for this reason, claim 20 is allowable. Claims 21-23 are patentable for at least the same reason as claim 20.

Applicants submit new dependent claim 24 which depends from claim 20. Claim 24 is thus patentable at least for the same reason as claim 20. Additionally, claim 24 requires the first boot block to be incapable of being overwritten to thereby remain usable, but the second boot block is capable of being overwritten. This feature is different than the teachings of Biondi as quoted above in which the original peripheral device firmware can be erased or rendered invalid if upgrade firmware is provided.

In the course of the foregoing discussions, Applicants may have at times referred to claim limitations in shorthand fashion, or may have focused on a particular claim element. This discussion should not be interpreted to mean that the other limitations can be ignored or dismissed. The claims must be viewed as a whole, and each limitation of the claims must be considered when determining the patentability of the claims. Moreover, it should be understood that there may be other distinctions between the claims and the prior art which have yet to be raised, but which may be raised in the future.

Applicants respectfully request that a timely Notice of Allowance be issued in this case. If any fees or time extensions are inadvertently omitted or if any fees have been overpaid, please appropriately charge or credit those fees to Hewlett-

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Packard Company Deposit Account Number 08-2025 and enter any time extension(s) necessary to prevent this case from being abandoned.

Respectfully submitted,

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